

**National Laboratory Training
Teleconference**

April 13, 2004

**State Training Coordinators:
Their Critical Networking Role**

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**Things to Talk About
Today's Public Health Laboratory**

- Emerging Threats
- Workforce Training
- Role of the STC



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Emerging Threats**

Reports:



***"Emerging Infections: Microbial
Threats to Health in the United
States"***
IOM January, 1992



***"Microbial Threats to Health: Emergence,
Detection, and Response"***
IOM March, 2003

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Emerging Threats

Reports:



- 1992-Wake up call
- Infectious diseases pose threat to U.S. security
- Complacent about wonder drugs and vaccines
- Problem of emerging and reemerging diseases



- 2003-Infectious diseases are increasing
- Potential to disrupt populations, economies, governments
- One nation's problem becomes every nation's problem
- Public health and medical communities unprepared

Microbial Threats

Factors in Emergence



-
- Microbial Adaptation and Change
 - Human Susceptibility to Infection
 - Climate and Weather
 - Changing Ecosystems

Microbial Threats

Factors in Emergence



-
- International Travel and Commerce
 - Economic Development and Land Use
 - Human Demographics and Behavior
 - Technology and Industry

Microbial Threats

Factors in Emergence



Breakdown of Public Health Measures

Poverty and Social Inequity

War and Famine

Lack of Political Will

Intent to Harm

Microbial Threats

Factors in Emergence



Highly interconnected "global village"

Microbial "perfect storms"

Convergence of multiple emergence factors

Creates especially high risk environments

"Catastrophic storm of microbial threats"

Microbial Threats

Major Concern



Highly interconnected "global village"

Microbial "perfect storms"

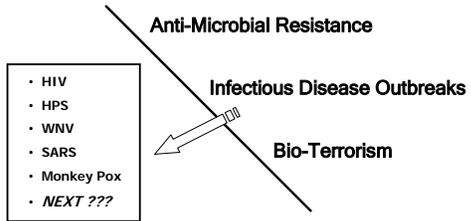
Convergence of multiple emergence factors

Creates especially high risk environments

"Catastrophic storm of microbial threats"

Emergence of Microbial Threats

Consequences



Focus of Laboratories

Differences

"Provide information for decision making"

Private Clinical Labs

- Diagnostic testing
- Some reference testing
- Medical management
- Focus = Individuals

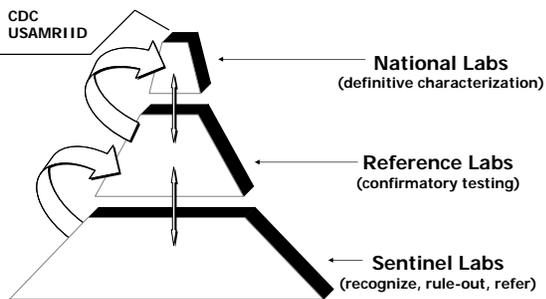
Public Health Labs

- Some diagnostic testing
- Reference testing
- Surveillance and monitoring
- Focus = Populations

Integrated Network

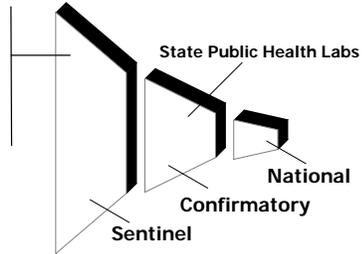
Identify Public Health Threats

National Laboratory Response Network (LRN)



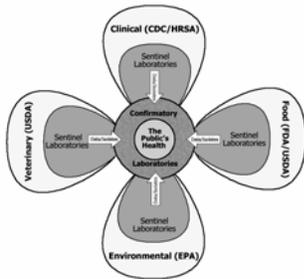
National Laboratory Response Network (LRN)

- Clinical Labs
- Public Health Labs
- Food Labs
- Veterinary Labs
- Environmental Labs



An Expanded LRN Model

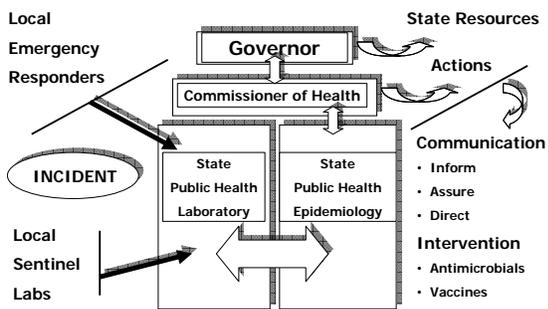
Inclusive



- Public's health as focus
- Based on three-tier LRN
 - Federal agencies
 - Confirmatory labs
 - Sentinel labs
- All terrorism targets
 - Clinical
 - Food
 - Environmental
 - Veterinary

State Response to Emergencies

Integration



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Addressing the Threats:

2003 IOM Report Gives 13 Recommendations

Among the Recommendations:

*“Educate and Train the
Microbial Threat
Workforce”*

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Report

*“The Future of the Public's Health
in the 21st Century”*
IOM November, 2003

- Lack of real-time surveillance and epidemiology systems
- Incomplete domestic preparedness / emergency response capabilities
- Communities without access to essential public health services

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*“The Future of the Public's Health
in the 21st Century”*
IOM November, 2003

- Vulnerable, outdated health information systems and technologies
- Insufficient, inadequately trained public health workforce
- Antiquated laboratory capacity

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"The Future of the Public's Health in the 21st Century"

IOM November, 2003

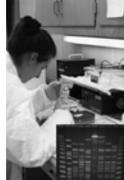
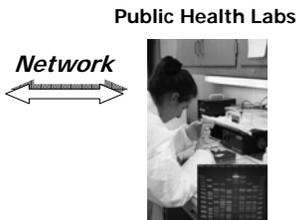
- Public health infrastructure suffers from neglect
- Need to strengthen workforce competence
- Need to provide appropriate education and training

Public Health Workforce

Lab Perspective



Sentinel Clinical Labs



State Training Coordinators

Critical Role

"Educate and Train the Microbial Threat Workforce"



- **Educate** - most current information
- **Train** - most current technology
- **Network** – promote *interdependency*

State Training Coordinators

Role

Areas of Focus

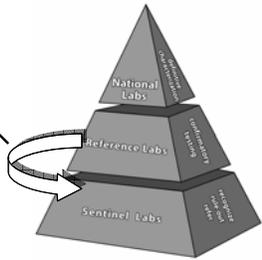
- Internal
- External



State Training Coordinators

Role in Training

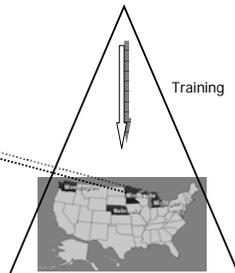
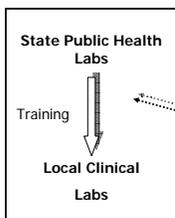
External
Training



Preparedness Requires Local Training

Individual
States

CDC



National Laboratory Training Network

Oversight by APHL and CDC

"Improving Laboratory Practice of Public Health Significance Through Quality Continuing Education"

Continuing Education Formats
Training Resources

National Laboratory Training Network

NLTN Regional Offices

Boston, MA
Chicago, IL
Nashville, TN
Richmond, CA

State Training Coordinators

Source of information
Represent NLTN locally

State Training Coordinators

Definition

- **Training:** specialized instruction and practice
- **Coordination:** harmonious interaction
- **The State Training Coordinator:** 

"The individual who develops and provides specialized instruction and training at the state level to assure quality laboratory practice and public health"

Spectrum of Training Coordinators

Position Titles

- State Training Coordinator
- Quality Assurance/Training Coordinator
- Bioterrorism Training Coordinator
- Teaching Coordinator
- Training and Outreach Coordinator

Spectrum of Training Coordinators

Position Titles

- Laboratory Bioterrorism Program Manager
- Program Administrator/Training Coordinator
- Learning Coordinator
- Training Coordinator (most common)
- State Laboratory Training Coordinator

Spectrum of Training Coordinators

Position Titles

- State Laboratory Trainer
- Coordinator
- Laboratory Outreach Coordinator
- Director of Education
- Laboratory Response Network Coordinator

Spectrum of Training Coordinators

Position Titles

- Bioterrorism Teaching Coordinator
- Supervisor, Training Section
- **NO SPECIFIC TITLE** (33%) ←
 - internal significance
 - external significance

The Role of State Training Coordinators

Activities:

- Partner with NLTN
- Partner with clinical laboratories
- Partner with STC colleagues
- Develop and implement:
 - *educational programs*
 - *training programs*
- Provide continuing education opportunities

The Role of State Training Coordinators

Activities:

- Continuing education for infectious disease lab staff
- Training of National Guard CST staff
- Continuing education for environmental lab staff

The Role of State Training Coordinators

Activities:

- Sentinel lab educational slides
- Developing internal lab training program
- Planning for clinical lab collaborative meeting

The Role of State Training Coordinators

Activities:

- Emergency Preparedness Internal Education/Training
- Developing specialized sentinel lab workshops
- Serving on clinical lab workforce shortage committee

The Role of State Training Coordinators

Activities:

- Providing education/training sites on web page
- Developing sentinel lab workshops for bioterrorism

The Role of State Training Coordinators

Challenges *"Connecting Through Training"*

- Overcome real and imagined barriers
- Promote conditions for growth
 - Mutual understanding of roles
 - Identifiable value to everyone
 - Ongoing communication
 - Continual reinforcement of essential roles

The Role of State Training Coordinators

Challenges *"Connecting Through Training"*

- Shift from independence to interdependency
- Establish a new laboratory culture

The Training Coordinator's Impact

Trainee Comments

*"... an excellent workshop...
Everyone did an excellent job. Very
good information."*

"Cool! Very informative."

The Training Coordinator's Impact

Trainee Comments

"I have a much better understanding of Public Health."

"This is a great service you provide . . . This is important information to get out to the local labs."

The Training Coordinator's Impact

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The Training Coordinator's Impact

Trainee Comments

". . . thank you and the rest of the staff for a very informative and interesting day at the workshop."

"I came away with great pride in our public health department and a new understanding of what your department stands for."

The Training Coordinator's Impact

Trainee Comments

"It is nice to see the Department of Health getting to know the labs in "Greater Minnesota" (even us little ones), rather than being a giant goliath sitting in the metro area."

The Importance of Networking

Protecting the Public

In Same Boat

"Working Together to Prevent Disaster"